

(19) World Intellectual Property
Organization
International Bureau



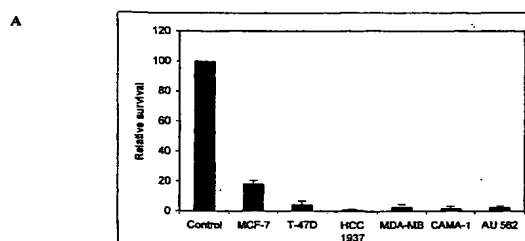
(43) International Publication Date
2 June 2005 (02.06.2005)

PCT

(10) International Publication Number
WO 2005/049793 A2

- (51) International Patent Classification⁷: **C12N**
- (21) International Application Number:
PCT/US2004/035643
- (22) International Filing Date: 27 October 2004 (27.10.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/519,342 12 November 2003 (12.11.2003) US
- (71) Applicant (for all designated States except US): **BOARD OF REGENTS, UNIVERSITY OF TEXAS SYSTEM** [US/US]; The Board of Regents, The University of Texas System, 201 West 7th Street, Austin, Texas 78701 (US).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **KAZHDAN, Irene** [US/US]; 13633 Bluff Circle, San Antonio, Texas 78216 (US).
- (74) Agent: **MYERS BIGEL SIBLEY & SAJOVEC, P.A.**; P.O. Box 37428, Raleigh, North Carolina 27627 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— without international search report and to be republished upon receipt of that report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHODS AND COMPOSITIONS FOR COMBINATORIAL APPROACHES TO CANCER GENE THERAPY



B

	MCF-7	T-47D	HCC 1937	MDA-MB-231	CAMA-1	AU 562
pcD-DR4	18.25±2.35	4.4±2.33	0.94±0.75	2.76±1.84	1.78±1.56	2.48±1.24
pcD-DR4 + TRAIL	15.4±1.77	3.58±0.14	0.27±0.32	3.91±0.66	0	0.42±0.49

C

Construct	GFP + cells (%)
IRE52-EGFP	20.24
IRE5-Luc	17.81
IRE5-DR4	2.59

(57) Abstract: The present invention provides a nucleic acid comprising a) a nucleotide sequence encoding one or more pro-apoptotic proteins, and b) a nucleotide sequence encoding one or more tumor-specific and/or tissue-specific promoters. Also provided is a method of treating cancer, comprising administering the compositions of this invention to a subject.